

Date: Wed, 14 Apr 93 15:01:02 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #463
To: Info-Hams

Info-Hams Digest Wed, 14 Apr 93 Volume 93 : Issue 463

Today's Topics:

 alpha display for HT
 ARRL/QST's advertising policies
 Chassis punches for tube sockets?
Do the \$.95 IRCs work from Europe? (2 msgs)
 FCC 2 & 3A question pools
 Great QSL cards?
 NASA SELECT rebroadcast frequencies
 Teletypes for Sale (FREE)
 TS50 prices
 Yaesu FT-470 mods
 Yaesu FT-5100/5200 mods

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 14 Apr 93 21:33:49 GMT
From: news-mail-gateway@ucsd.edu
Subject: alpha display for HT
To: info-hams@ucsd.edu

>Subject: dualband HT with alpha display???
>
>...display a short phrase with the
>frequency to help her keep the freq's straight. So if she was on
>145.115, the display would also say NCARC Repeater. Or 147.570
>Simplex1... you get the idea. Any recommendations?
>

>Charles (N0TQJ/AG)

From: Cecil_A_Moore@ccm.hf.intel.com

Charles, it's going to be hard to do what you want to do with an HT unless it is already built in (I don't know of any). But it would be relatively easy to do with something like a Ramsey FX or ICOM-22S transceiver (mobile or fixed). Use a microcomputer, like an 80C51, and let the computer control the diode matrix input for frequency selection AND also output the desired information to an alpha-numeric display or a PC. I am working on just such a system using an ICOM-22S. There are public domain assemblers and debuggers available for the 80C51 and the instruction set is easy to learn...KG7BK

Date: Wed, 14 Apr 1993 22:26:47 GMT
From: dog.ee.lbl.gov!hellgate.utah.edu!cs.utexas.edu!sdd.hp.com!spool.mu.edu!agate!headwall.Stanford.EDU!unixhub!slcsrv.slac.stanford.edu!gregs@network.UCSD.EDU
Subject: ARRL/QST's advertising policies
To: info-hams@ucsd.edu

jeg7e@livia.acs.Virginia.EDU (Jon Gefaell) writes:

>In article <1993Apr9.144246.1@slcsrv.slac.stanford.edu>

gregs@slcsrv.slac.stanford.edu writes:

>>

>>You know -- I've given this some thought. Maybe the ARRL is biased against
>>gays, maybe not. The bottom line still is that as a publication and the owners
>>of that publication, they have the right to decide what goes in it or not.
>>Now the point here hasn't been whether the ARRL should HAVE to post the LARC
>>ad, but that the ARRL was practicing discrimination based on sexual orientation
>>-- a perfectly legal form of discrimination, and their right btw -- in not
>>doing so. Pass your judgements on that basis.

>

>

>Perhaps you are not a member of the ARRL, or perhaps you haven't figured
>out that QST is the membership journal of the ARRL.

>

>In other words, the ARRL is a public membership organization. It is not
>owned by any individual.

>

>Further, the League is given special status as a VEC and as a source of
>delegates for the WARC and IARU by our government, thus they become further
>distanced from your model of the League as some sort of private enterprise.

>

>Nice try though, but you haven't thought it through very well, now have
>you?

No -- I'm not an ARRL member. As a public membership organization, however, I would assume that there are certain rights of private ownership bestowed upon the "member owners" or some assemblance thereof. I would sincerely doubt that the ownership status of QST is simply something akin to socialism where it is free public domain. Advertising dollars are accepted from various vendors, and the decision of what ads go in and what do not must rest somewhere. Otherwise that would establish a precedent for the inability of the ARRL to prevent ads from appearing in QST. As an extreme hypothetical example, if some KKK Amateur Radio Society wanted to publish an ad for their organization -- which happens to advocate mutual on-air chatter about the extermination of blacks, what Hitler failed to complete with the Jews, etc. -- then QST would be powerless to prevent it.

I'm no ARL member and I'm no lawyer (but I play one on TV), but I also don't see that as the case.

greg

Date: Wed, 14 Apr 1993 19:44:43 GMT
From: sdd.hp.com!hpscit.sc.hp.com!news.dtc.hp.com!srigenprp!alanb@network.UCSD.EDU
Subject: Chassis punches for tube sockets?
To: info-hams@ucsd.edu

R.G. Keen (rg@futserv.austin.ibm.com) wrote:
: My apologies if this is not good place to post this.
: Does anyone know where I can buy chassis punches to make
: holes for tube sockets?

Chassis punches are made by Greenlee (expensive) and others (more reasonable). The cheap ones should work fine if you only need to make an occasional hole.

I bought mine at the local electronics supply house. (They had to order them.) I expect any decent tool store could get them as well.

AL N1AL

Date: 14 Apr 93 19:49:41 GMT
From: sdd.hp.com!hpscit.sc.hp.com!hpuerca.atl.hp.com!edh@hplabs.hpl.hp.com
Subject: Do the \$.95 IRCs work from Europe?
To: info-hams@ucsd.edu

In <C5Hn0A.AtD@squam.banyan.com> dts@banyan.com (Daniel Senie) writes:

>They say explicitly (In several
>languages) that they are good for a unit of AIR MAIL from any country which
>honors the agreements.

Cheers & 73 Ed Humphries N5RCK
Hewlett-Packard NARC Atlanta GA
edh@hpuerca.atl.hp.com

Currently purchasable IRCs are supposed to be honored anywhere the international postal body (I can't remember the precise name) has agreements. I have used single IRCs of this new type to many countries. They say explicitly (In several languages) that they are good for a unit of AIR MAIL from any country which honors the agreements. DX stations should not need 2 or 3 IRCs of the new type from ANY country that takes IRCs for postage.

Date: Wed, 14 Apr 1993 18:41:13 GMT
From: sdd.hp.com!nigel.msen.com!caen!uwm.edu![linac!att!cbnewsm!
wx4d@network.UCSD.EDU](mailto:linac!att!cbnewsm!wx4d@network.UCSD.EDU)
Subject: FCC 2 & 3A question pools
To: info-hams@ucsd.edu

>I'm a ham'er to be. I've been studying the ARRL book "Now You're
>Talking with HAM radio" for the last few weeks. I'm almost done reading

>it all and will start reviewing and studying the questions before I take
>the test. I'll be taking the Technician FCC exams parts 2 and 3A.

>

>What I would like to know is there a program on the net that will
>randomly generate sample tests from the official question pool? If not,
>I was thinking if anyone has the questions in electronic form, that I
>could write a short program to read in the questions and output sample
>tests.

>

>If you know of such a program or where an online copy of the question
>pool is, please email me.

>

>Thanks,

>

>Matthew.

>--

>Matthew Braun

>braun@ann-arbor.applicon.slb.com

>

Applicon, Inc.

Ann Arbor, Michigan (USA)

(313) 995-6264

For MS DOS, Autoexam by Rich Bono (NM1D?) is a nice piece of shareware.
It does exactly what you are looking for. I think the question pools
are also available from various places.

Download AUTOEXAM.ZIP and use pkunzip or a similar program to unpack it.
It comes with the question pools & documentation. The only thing
you will need is a copy of the ARRL "Now You're Talking" or W5YI's book
to get the figures. AUTOEXAM doesn't have any graphics. When the
question involves a diagram, the Figure number is given, so you can
look it up in N.Y.T.

The zip file also includes AUTOCW, which will run CW practice in various
modes.

Good luck... Hope you pass the test soon!

73,

Jim Morgan WX4D/3

jvm@aluxpo.att.com

PS: almost forgot: AUTOEXAM.ZIP can be downloaded from various places,
one of which is wuarchive.wustl.edu (pub/hamradio directory I think).
Another way to get it is via KA6ETB's mail server. Send mail to
HAM-server@grafex.Cupertino.CA.US and include the line:
get /hamradio/exams/AUTOEXAM.ZIP uue

You will receive mail with AUTOEXAM.ZIP uuencoded. You can specify "xxe" instead of "uue" for encoding with xxencode instead of uuencode. You have to use some kind of encoding to send binary files through the mail.

The word INDEX on a separate line will cause the server to send you an index of all the files he has available.

Good luck & 73 de WX4D

Date: Wed, 14 Apr 1993 19:45:51 GMT
From: dog.ee.lbl.gov!hellgate.utah.edu!cs.utexas.edu!uwm.edu!linac!att!cbnews!jeffj@network.UCSD.EDU
Subject: Great QSL cards?
To: info-hams@ucsd.edu

I would like to design my own QSL card and I was hoping that some fellow hams could tell me here about great QSL cards that they have received. I got one from Yugoslavia that showed a ham in bed with a buxom woman and him asking the other ham to QRX for a minute as he was busy. 8-) For some reason my wife didn't like that one. 8-) Does anyone have any good ideas for QSL cards or ones that they particularly like that they could share with the net and myself? 73!

Jeff

--

Jeff Jones AB6MB		OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT!
jeffj@seeker.mystic.com		Canada/USA Free Trade cost Canada 400,000 jobs.
Infolinc BBS 415-778-5929		Want to guess how many we'll lose to Mexico?

Date: 14 Apr 93 19:05:57 GMT
From: sdd.hp.com!nigel.msen.com!caen!sol.ctr.columbia.edu!emory!logicse!das-news.harvard.edu!noc.near.net!squam.banyan.com!banyan.com!dts@network.UCSD.EDU
Subject: NASA SELECT rebroadcast frequencies
To: info-hams@ucsd.edu

In article <1qc9okINN2l7@topaz.bds.com>, ron@topaz.bds.com (Ron Natalie) writes:
|> NASA SELECT is not the proper term here. NASA SELECT is the video feed.
|> Goddard (and probably some of the other retransmission sites at NASA installations) get their audio through a different network. If you
|> bring up WA3NAN audio while you're watching NASA SELECT, you'll notice
|> quite a delay in the NASA SELECT audio.
|>

|> -Ron

Actually, I did this the other night. I get NASA select directly from F2/13 and brought up the WA3NAN on the HF rig and was surprised that there was NO delay. This would seem to indicate that WA3NAN was getting their feed from the NASA Select transponder, or from some other satellite (1 hop) hookup. There would be a quarter second or so of delay otherwise (which IS REALLY noticable).

--

Daniel Senie Internet: dts@banyan.com
Banyan Systems, Inc. Compuserve: 74176,1347
508-898-1188 Packet Radio: N1JEB@WA1PHY.MA

Date: 14 Apr 93 19:35:25 GMT
From: sdd.hp.com!hpscit.sc.hp.com!hpuorfk.ssr.hp.com!doug@hplabs.hpl.hp.com
Subject: Teletypes for Sale (FREE)
To: info-hams@ucsd.edu

Reminds me of when(6 or so, most likely so, years ago) I decided to unload mine. I hauled it to several hamfest, reducing price to free at the last one; no takers. I then upped the ante to \$5.00-----gone in five minutes, and they actually paid ME the five bucks.
Good luck DE KF4ZE

Date: 14 Apr 93 17:00:10 GMT
From: news.cerf.net!pagesat!olivea!spool.mu.edu!torn!nott!bnrgate!bnr.co.uk!pipex!uknet!mcsun!sun4nl!bsoatr!bsdihi!dihi@network.UCSD.EDU
Subject: TS50 prices
To: info-hams@ucsd.edu

Wow, what a price difference for the same prouduct in different countries! The TS50 sells in Holland for about HFL 2750. (About \$1600). On the net I read that the same product costs about \$1000 in the US. Does anybody have experience ordering and shipping equipment from the US to Europe? What are the additional shipping and tax expences? (Is there a way to avoid taxes?)
Any info on this subject welcome!

Dick Hissink PA3DSP

Email:dihi@bsdihl.atr.bso.nl

Date: Wed, 14 Apr 1993 15:39:57 GMT
From: pacbell.com!amdahl!amdcad!amdcl2!brian@network.UCSD.EDU
Subject: Yaesu FT-470 mods
To: info-hams@ucsd.edu

I have a large collection of mods for the ft470 that I will mail (or post if volume is high). For those of you who already have a copy of this mods list, the current revision is Rev D.

Brian McMinn, N5PSS, brian.mcminn@amd.com or brian@amdcl2.amd.com

Date: Wed, 14 Apr 1993 15:59:30 GMT
From: pacbell.com!amdahl!amdcad!amdcl2!brian@network.UCSD.EDU
Subject: Yaesu FT-5100/5200 mods
To: info-hams@ucsd.edu

I've received many requests for the 5100/5200 mods, so I'm posting them. I'd like to get them onto an ftp site or two, but can't do that myself, so please e-mail me if you can do this for me. Thanks to the contributors and the folks who reviewed Rev A!

73, Brian

cut here...

Yaesu FT-5100/FT-5200 MODS
Rev B (14 Apr 1993)

This is a collection of hardware and software mods for the Yaesu 5100/5200 pair. I have the 5100, so I can't verify these for the 5200. I have collected every mod seen on the net (ie. Usenet) since the introduction of the 5100, so I think this list is fairly complete. I am interested in getting updates and corrections to this list, so please send me e-mail if you find something that needs updating. (This includes typos, wrong or missing attributions, caveats, warnings about unmentioned side effects, serial numbers of radios that won't do some of these mods, etc.)

SOME OF THESE MODIFICATIONS MAY DAMAGE YOUR RADIO IF YOU PERFORM

THEM IMPROPERLY. WHEN IN DOUBT, DO NOT PERFORM THE MODIFICATION.

This advice is free, so remember that you get what you pay for.

Brian McMinn (brian.mcminn@amd.com)
N5PSS
512-462-5389

General Review (5100):

Since Yaesu's advertising has already made the good points known, I'll concentrate on the warts and shortcomings.

Dual In-Band Receive: works as advertised except for sensitivity. The "main" receiver works very well. The "sub" receiver works very well when tuned to the opposite band from the "main" receiver. When tuned to the same band, the "sub" receiver suffers from slightly lower sensitivity in the ham bands and greatly reduced sensitivity out of the ham bands.

There is a 2m VCO/PLL/IF and a 70cm VCO/PLL/IF. I assume that dual in band receive is done with the opposite band's receiver. This would explain the poor sensitivity, but it sure raises some questions about how the duplexer works.

I expected a type "N" connector, the radio came with UHF.

Control wart: (are you listening Yaesu?) You can only transmit on the "main" (ie. left) side of the radio. When both 2m and 70cm receive are active, you change bands with the "BAND" button. This swaps the left and right displays. When dual in-band receive is active, the "BAND" button changes both the main and sub receivers from 2m to 440 or from 440 to 2m. Arrrrgh!!!! I would prefer a "SWAP" button to swap left and right regardless of mode. (The "SUB" button is used instead.)

Automatic backlight dim: works as advertised but the backlight level under low ambient lighting is WAY too low. Manual control is the best solution.

DTMF page: works as advertized, but the *%\$#@ thing insists on "ringing" like a phone EVERY time it receives the page sequence. This means that you have to co-ordinate with the other station to turn the *%\$#@ DTMF stuff off at the same time or tolerate the "ring" at the start of every receive.

CTCSS decode: squelch opens quickly when normal CTCSS decode (an option) is enabled. There is a CTCSS page function that has a distinct delay between receipt of carrier with CTCSS and open squelch. I don't yet understand the use of this "feature."

There is no SCAN button on the front panel. Scan is initiated by holding the up or down button of the mike down for two seconds. The scan is blindingly fast when compared to the Alinco 590 that I used to have.

Memory: memory is divided into four "banks." Two for VHF, two for UHF. Only one bank can be active for each receiver. I consider this an advantage, but you may not. There are two obvious (to me) uses for this configuration. First, you can store frequencies for different uses in different banks. Second, you can activate one 2m(440) bank in the main receiver and one the other 2m(440) bank in the other receiver and scan them simultaneously.

Heat management: After seeing the HUGE heat sink on the back of the Alinco 590, the Yaesu 5100's sink seems too small. In a key down experiment, the heat sink of the Yaesu got almost too hot to touch before the fan kicked on. If I were planning to run a packet station, I would definitely look into some extra forced air over the back of this one. As it is, I'm a bit concerned about how hot it will get mounted in my dashboard. [Others people don't seem to have this problem.]

DTMF Decode and Scan: If you have CTCSS decode (an option) enabled on a memory and you are scanning and there is activity on that frequency but without the correct CTCSS tone, the 5100 stops scan, flashes the strength meter and then continues scanning. It is slower than normal scan, but still quite fast.

Attributed: Brian McMinn, N5PSS, brian.mcminn@amd.com

Backlight Control:

Effect: manual control of backlight

- 1) Hold down the MHZ key and turn radio on
- 2) Use tuning knob to adjust brightness
- 3) When FUNC is active, the tuning knob will adjust brightness again.

4) You can restore automatic control by repeating step 1.

Notes: Manual is fuzzy on this feature.

Attributed: Yaesu

Crossband Repeat (reported as working on 5100 and 5200):

Effect: Enable crossband repeat

- 1) Dial up two frequencies you want to crosslink (be sure to pay attention to transmit offsets, if any)
- 2) Turn radio off.
- 3) Hold down the RPT key and turn radio on

Result: The tone encode/decode flags and the -+ flags will be flashing and the radio will be in low power mode. When either band's squelch opens, the other band is moved into the primary frequency display and the transmitter keys. Audio link appears to be speaker to mike.

Exit crossband repeat mode by repeating steps 2 and 3 above.

Attributed: Yaesu

Transmitter Timeout:

Effect: automatically limit transmitter "on" time

- 1) Hold down the HIGH/LOW button and turn radio on
- 2) Use tuning knob to change the number in left VF0. This number is number of minutes for the timeout timer. The factory default appears to be 15 minutes.
- 3) Transmitter shuts off with "Err" displayed in VF0 if the time limit is exceeded.

Attributed: Bill Mayhew, N8WED, wtm@uhura.neoucom.edu

Tech Manual:

The technical manual for the 5100 is [information wise] pretty spare. No additional operating notes or hidden secrets are

revealed. It is worthwhile for the alignment notes and complete parts list. Call the number in your owners manual to order.

Attributed: Bill Mayhew, N8WED, wtm@uhura.neoucom.edu

DTMF decoding:

Effect: display decoded DTMF tones

Note: [ed] this works on the FT-530, but not on my 5100. I'm including it here on the chance that it works on the 5200. Please try it on your 5200 (or 5100) and tell me if it works for you.

- 1) Select frequency and turn on the code squelch
- 2) Press Function-Page(Code) to select a code memory
- 3) Dial up to memory #7 [the 5100 won't do this]
- 4) Watch the dtmf's scroll by as they are heard by the radio!

Attributed: jmeyers@ecst.csuchico.edu (Jeff Meyers)

Crossband Audio Enhancement:

Effect: unmuffle crossband audio

Connect a 27K ohm resistor between the audio-in and audio-out leads on the data jack (inside the shell of a mini plug, that is). The mic element stays live while in xband operation. It is a good idea to remove the mic from the rig while cross banding if you need/want to eliminate ambient audio.

Attributed: Bill Mayhew, N8WED, wtm@uhura.neoucom.edu

Wireless Mike (review):

The wireless mike sends audio over 49.85MHz, so it is can't be used in high RF environments (like near computers). It duplicates ALL front panel controls with the exception of the power button.

It interfaces to the rig via a standard mic plug. The receiving unit is only about 1'h x 2w x 1/2d.

[ed] The implications of this are that the entire radio can be controlled via the microphone port! Too bad there isn't a fancy *wired* mike with all the controls on it.

Several people have reported trouble with the mike -- enough trouble for them to return it because of poor range and poor audio. It works well if you sit on top of the pickup unit, but then you don't need a wireless mike.

Attributed: Tony Pelliccio, KD1NR system@garlic.sbs.com

The "P" Key on the microphone:

I was curious about that "P" key on my FT-5100, so I called Yeasu and they explained the situation. They designed the mic to accomodate "future products". The "P" key is there to be taken advantage of at a later date by other models. They just did not want to re-design the mic again within a short period of time.

Attributed: Will Collier, KB5WRK, COLLIER@gallant.apple.com

Expanded Receive:

Good Effect: enable extended receive coverage

New range: 128-180MHz and 420-475MHz

Bad Effect: disable automatic repeater shift selection.

Warning: This mod does not apply to the FT-5200 as the design is somewhat different.

Warning: You must have a very steady hand or else! A magnifying glass would help too.

1) Disconnect DC Power cable from radio. ALWAYS!

****Caution**** NEVER TRY TO TAKE APART (DISASSEMBLE) THE FRONT CONTROL HEAD. It will void your warranty.

2) Remove (6) screws from Top Cover of Radio and (6) screws

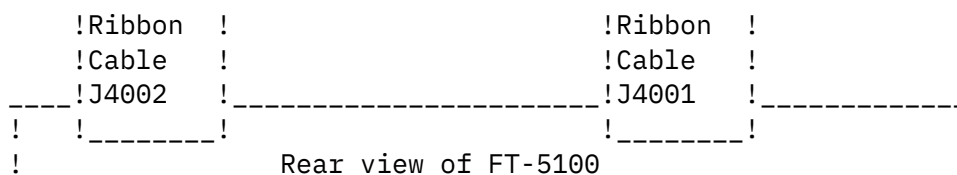
- 3) Remove Top & Bottom Covers from Radio (Be careful of speaker falling out).
- 4) Remove the (2) silver screws on each side of the radio holding front control head to main body of radio.
- 5) Carefully pull away (a few inches) the Control Head from the radio body. CAREFUL with the Ribbon Cables.

- 6) On the rear of the Control head locate, Unsolder and remove jumper Pad R4072.
- 7) Solder across jumper pads: R4070 R4068 & R4064 (use wire or 0 Ohm resistor)

- 8) Install Front Control head, Speaker, Top and Bottom Covers and Reconnect Power to the Radio.
- 9) Press and hold [D/MR] [F/W] [REV] Keys and turn on the Radio. Radio will now show 300.000 & 20.000 on Display.
- 10) Set UHF Rx Low - Press [MHz] and dial 420.00, press [D/MR]
- 11) Set UHF Rx High- Press [MHz] and dial 475.00, press [D/MR]
- 12) Set UHF Tx Low - Press [MHz] and dial 420.00, press [D/MR]
- 13) Set UHF Tx High- Press [MHz] and dial 450.00, press [D/MR]
- 14) Set VHF Rx Low - Press [MHz] and dial 128.00, press [D/MR]
- 15) Set VHF Rx High- Press [MHz] and dial 180.00, press [D/MR]
- 16) Set VHF Tx Low - Press [MHz] and dial 140.00, press [D/MR]
- 17) Set VHF Tx High- Press [MHz] and dial 150.00, press [D/MR]
- 18) Set UHF offset - Press [F/W] then [RPT] dial 5.000 press [RP]
- 19) Set UHF tuning - Press [F/W] then [REV] dial 25.0 press [RP]
- 20) Set VHF offset - Press [F/W] then [RPT] dial 0.600 press [RP]
- 19) Set VHF tuning - Press [F/W] then [REV] dial 20.0 press [RP]

(VHF tuning step varies by state -- many use 15.0)

Ok, here's where it gets tricky, but so you know, a '|' represents a jumper.



Stock US Jumpers	After Mod. Jumpers
R4001	R4001
R4003	R4003
R4004	R4004
R4051	R4051
R4061	R4061
R4062	R4062
	R4064
R4067	<- for D/MR button mod
	R4068
	R4070
R4072	

Attributed: Tony Pelliccio, KD1NR system@garlic.sbs.com

Effect: D/MR button on microphone performs band switching rather than D/MR function.

- 1-5) as in above mod
- 6) Remove the jumper on Pad R4067
- 7) skip above step 7
- 8) continue with step 8 above

Attributed: Tony Pelliccio, KD1NR system@garlic.sbs.com

[end of mod sheet Rev B]

End of Info-Hams Digest V93 #463
